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 ggtggcagtt ctgtggctgg ttttggtagt ccgggctcac attctcacac tgctttttct
 aagccatcca gtgacacttt tggaaatagc agcatatcca cttctctgtc agcctcaagc
 agcatcattg caacagataa tgtgttattc acacccagaa ataaactaac agtagaagaa
 ctggaacaat ttcaatccaa gaaatttact ctgggaaaaa ttccattaaa gcctccacct
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 tataagette catcaatagt gattttaaat ttgatttttt tettaaetet aaatatttaa
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<211> 363
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<213> Homo sapiens
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Met Lys Thr Leu Leu Leu Val Gly Leu Leu Leu Thr Trp Glu Asn
Gly Arg Val Leu Gly Asp Gln Met Val Ser Asp Thr Glu Leu Gln Glu
Met Ser Thr Glu Gly Ser Lys Tyr Ile Asn Arg Glu Ile Lys Asn Ala
Leu Lys Gly Val Lys Gln Ile Lys Thr Leu Ile Glu Gln Thr Asn Glu
Glu Arg Lys Ser Leu Leu Thr Asn Leu Glu Glu Ala Lys Lys Lys
 65
                    70
Glu Asp Ala Leu Asn Asp Thr Lys Asp Ser Glu Met Lys Leu Lys Ala
Ser Gln Gly Val Cys Asn Asp Thr Met Met Ala Leu Trp Glu Glu Cys
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			100					105					110		
Lys	Pro	Cys 115	Leu	Lys	Gln	Thr	Cys 120	Met	Lys	Phe	Tyr	Ala 125	Arg	Val	Cys
Arg	Ser 130	Ser	Thr	Gly	Leu	Val 135	Gly	His	Gln	Val	Glu 140	Glu	Phe	Leu	Asn
Gln 145	Ser	Ser	Pro	Phe	Tyr 150	Phe	Trp	Ile	Asn	Gly 155	Asp	Arg	Ile	Asp	Ser 160
Leu	Leu	Glu	Asn	Asp 165	Arg	Gln	Gln	Thr	His 170	Ala	Leu	Asp	Val	Met 175	Gln
Asp	Ser	Phe	Asp 180	Arg	Ala	Ser	Ser	Ile 185	Met	Asp	Glu	Leu	Phe 190	Gln	Asp
Arg	Phe	Phe 195	Thr	Arg	Glu	Ala	Gln 200	Asp	Pro	Phe	His	Phe 205	Ser	Pro	Phe
Ser	Ser 210	Phe	Gln	Arg	Arg	Pro 215	Phe	Phe	Phe	Asn	Ile 220	Lys	His	Arg	Phe
Ala 225	Arg	Asn	Ile	Met	Pro 230	Phe	Pro	Gly	Tyr	Gln 235	Pro	Leu	Asn	Phe	His 240
Asp	Met	Phe	Gln	Pro 245	Phe	Phe	Asp	Met	Ile 250	His	Gln	Ala	Gln	Gln 255	Ala
Met	Asp	Val	Asn 260	Leu	His	Arg	Leu	Pro 265	His	Phe	Pro	Met	Glu 270	Phe	Thr
Glu	Glu	Asp 275	Asn	Gln	Asp	Gly	Ala 280	Val	Cys	Lys	Glu	Ile 285	Arg	His	Asn
Ser	Thr 290	Gly	Cys	Leu	Lys	Met 295	Lys	Asp	Gln	Cys	Glu 300	Lys	Cys	Arg	Glu
Ile 305	Leu	Ser	Val	Asp	Cys 310	Ser	Ser	Asn	Asn	Pro 315	Ala	Gln	Val	Gln	Leu 320
Arg	Gln	Glu	Leu	Asn 325	Asn	Ser	Leu	Gln	Ile 330	Ala	Glu	Lys	Phe	Thr 335	Lys
Leu	Val	Arg	Arg 340	Ala	Ala	Ala	Val	Leu 345	Pro	Gly	Glu	Asp	Val 350	Gln	His
Val	Leu	Pro	Ala	Glu	Ala	Ala	Gly	Arg	Ala	Val					

<210> 35

<211> 766

<212> PRT

<213> Homo sapiens

355

<400> 35

Met Ile Trp Arg Ser Arg Ala Gly Ala Glu Leu Phe Ser Leu Met Ala

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Leu	Trp	Glu	Trp 20	Ile	Ala	Leu	Ser	Leu 25	His	Cys	Trp	Val	Leu 30	Ala	Val
Ala	Ala	Val 35	Ser	Asp	Gln	His	Ala 40	Thr	Ser	Pro	Phe	Asp 45	Trp	Leu	Leu
Ser	Asp 50	Lys	Gly	Pro	Phe	His 55	Arg	Ser	Gln	Glu	Tyr 60	Thr	Asp	Phe	Val
Asp 65	Arg	Ser	Arg	Gln	Gly 70	Phe	Ser	Thr	Arg	Tyr 75	Lys	Ile	Tyr	Arg	Glu 80
	_		_	85	Val				90					95	
Leu	Gly	Ser	Pro 100	Leu	Pro	Leu	Ala	Pro 105	Glu	Phe	Phe	Arg	Asn 110	Ile	Arg
		115			Pro		120					125			
_	130	_			His	135					140				
145					Phe 150					155					160
Glu	Gly	Ser	Asp	Ser 165	Thr	Thr	Asn	Ser	Ser 170	Ser	Val	Thr	Leu	Glu 175	Thr
			180		Ala			185					190		
		195			Ile		200					205			
	210	_		-	Pro	215					220				
225					Leu 230					235					240
				245	Leu				250					255	
			260		Tyr			265					270		
		275			Cys		280					285			
	290				Met	295					300				
Arg	Ile	Thr	Glu	Thr	Trp	Lys	Ala	Tyr	Asn	Ser	Asp	Phe	Glu	Glu	Ser

- Asp Glu Phe Lys Leu Phe Met Lys Arg Leu Pro Met Asn Tyr Phe Leu 325 330 335
- Asn Thr Ser Thr Ile Met His Leu Trp Thr Met Asp Ser Asn Phe Gln 340 345 350
- Arg Arg Tyr Glu Gln Leu Glu Asn Ser Met Lys Gln Leu Phe Leu Lys 355 360 365
- Ala Gln Lys Ile Val His Lys Leu Phe Ser Leu Ser Lys Arg Cys His 370 380
- Lys Gln Pro Leu Ile Ser Leu Pro Arg Gln Arg Thr Ser Thr Tyr Trp 385 390 395 400
- Leu Thr Arg Ile Gln Ser Phe Leu Tyr Cys Asn Glu Asn Gly Leu Leu 405 410 415
- Gly Ser Phe Ser Glu Glu Thr His Ser Cys Thr Cys Pro Asn Asp Gln
 420 425 430
- Val Val Cys Thr Ala Phe Leu Pro Cys Thr Val Gly Asp Ala Ser Ala 435 440 445
- Cys Leu Thr Cys Ala Pro Asp Asn Arg Thr Arg Cys Gly Thr Cys Asn 450 455 460
- Thr Gly Tyr Met Leu Ser Gln Gly Leu Cys Lys Pro Glu Val Ala Glu 465 470 475 480
- Ser Thr Asp His Tyr Ile Gly Phe Glu Thr Asp Leu Gln Asp Leu Glu 485 490 495
- Met Lys Tyr Leu Leu Gln Lys Thr Asp Arg Arg Ile Glu Val His Ala 500 505 510
- Ile Phe Ile Ser Asn Asp Met Arg Leu Asn Ser Trp Phe Asp Pro Ser 515 520 525
- Trp Arg Lys Arg Met Leu Leu Thr Leu Lys Ser Asn Lys Tyr Lys Ser 530 535 540
- Ser Leu Val His Met Ile Leu Gly Leu Ser Leu Gln Ile Cys Leu Thr 545 550 555 560
- Lys Asn Ser Thr Leu Glu Pro Val Leu Ala Val Tyr Val Asn Pro Phe 565 570 575
- Gly Gly Ser His Ser Glu Ser Trp Phe Met Pro Val Asn Glu Asn Ser 580 585 590
- Phe Pro Asp Trp Glu Arg Thr Lys Leu Asp Leu Pro Leu Gln Cys Tyr 595 600 605
- Asn Trp Thr Leu Thr Leu Gly Asn Lys Trp Lys Thr Phe Phe Glu Thr 610 615 620

Val His Ile Tyr Leu Arg Ser Arg Ile Lys Ser Asn Gly Pro Asn Gly 625 630 635 640

Asn Glu Ser Ile Tyr Tyr Glu Pro Leu Glu Phe Ile Asp Pro Ser Arg
645 650 655

Asn Leu Gly Tyr Met Lys Ile Asn Asn Ile Gln Val Phe Gly Tyr Ser 660 665 670

Met His Phe Asp Pro Glu Ala Ile Arg Asp Leu Ile Leu Gln Leu Asp 675 680 685

Tyr Pro Tyr Thr Gln Gly Ser Gln Asp Ser Ala Leu Leu Gln Leu Leu 690 695 700

Glu Ile Arg Asp Arg Val Asn Lys Leu Ser Pro Pro Gly Gln Arg Arg 705 710 715 720

Leu Asp Leu Phe Ser Cys Leu Leu Arg His Arg Leu Lys Leu Ser Thr
725 730 735

Ser Glu Val Val Arg Ile Gln Ser Ala Leu Gln Ala Phe Asn Ala Lys 740 745 750

Leu Pro Asn Thr Met Asp Tyr Asp Thr Thr Lys Leu Cys Ser 755 760 765

<210> 36

<211> 208

<212> PRT

<213> Homo sapiens

<400> 36

Met Gly Leu Gly Ala Arg Gly Ala Trp Ala Ala Leu Leu Leu Gly Thr 1 5 10 15

Leu Gl
n Val Leu Ala Leu Leu Gly Ala Ala His Glu Ser Ala Ala Met
 $20 \hspace{1.5cm} 25 \hspace{1.5cm} 30$

Ala Ala Ser Ala Asn Ile Glu Asn Ser Gly Leu Pro His Asn Ser Ser 35 40 45

Ala Asn Ser Thr Glu Thr Leu Gln His Val Pro Ser Asp His Thr Asn 50 55 60

Glu Thr Ser Asn Ser Thr Val Lys Pro Pro Thr Ser Val Ala Ser Asp 65 70 75 80

Ser Ser Asn Thr Thr Val Thr Thr Met Lys Pro Thr Ala Ala Ser Asn 85 90 95

Thr Thr Pro Gly Met Val Ser Thr Asn Met Thr Ser Thr Thr Leu
100 105 110

Lys Ser Thr Pro Lys Thr Thr Ser Val Ser Gln Asn Thr Ser Gln Ile 115 120 125

Ser Thr Ser Thr Met Thr Val Thr His Asn Ser Ser Val Thr Ser Ala 130 135 140

Ala Ser Ser Val Thr Ile Thr Thr Met His Ser Glu Ala Lys Lys 145 150 155 160

Gly Ser Lys Phe Asp Thr Gly Ser Phe Val Gly Gly Ile Val Leu Thr 165 170 175

Leu Gly Val Leu Ser Ile Leu Tyr Ile Gly Cys Lys Met Tyr Tyr Ser 180 185 190

Arg Arg Gly Ile Arg Tyr Arg Thr Ile Asp Glu His Asp Ala Ile Ile 195 200 205

<210> 37

<211> 605

<212> PRT

<213> Homo sapiens

<400> 37

Met Gly Arg Leu Leu Arg Ala Ala Arg Leu Pro Pro Leu Leu Ser Pro 1 5 10 15

Leu Leu Leu Leu Val Gly Gly Ala Phe Leu Gly Ala Cys Val Ala 20 25 30

Gly Ser Asp Glu Pro Gly Pro Glu Gly Leu Thr Ser Thr Ser Leu Leu 35 40 45

Asp Leu Leu Pro Thr Gly Leu Glu Pro Leu Asp Ser Glu Glu Pro 50 60

Ser Glu Thr Met Gly Leu Gly Ala Gly Leu Gly Ala Pro Gly Ser Gly 65 70 75 80

Phe Pro Ser Glu Glu Asn Glu Glu Ser Arg Ile Leu Gln Pro Pro Gln
85 90 95

Tyr Phe Trp Glu Glu Glu Glu Leu Asn Asp Ser Ser Leu Asp Leu 100 105 110

Gly Pro Thr Ala Asp Tyr Val Phe Pro Asp Leu Thr Glu Lys Ala Gly
115 120 125

Ser Ile Glu Asp Thr Ser Gln Ala Gln Glu Leu Pro Asn Leu Pro Ser 130 135 140

Pro Leu Pro Lys Met Asn Leu Val Glu Pro Pro Trp His Met Pro Pro 145 150 155 160

Arg Glu Glu Glu Glu Glu Glu Glu Glu Glu Arg Glu Lys Glu
165 170 175

- Glu Val Glu Lys Gln Glu Glu Glu Glu Glu Glu Glu Leu Leu Pro Val 180 185 190
- Asn Gly Ser Gln Glu Glu Ala Lys Pro Gln Val Arg Asp Phe Ser Leu 195 200 205
- Thr Ser Ser Ser Gln Thr Pro Gly Ala Thr Lys Ser Arg His Glu Asp 210 215 220
- Ser Gly Asp Gln Ala Ser Ser Gly Val Glu Val Glu Ser Ser Met Gly 225 230 235 240
- Pro Ser Leu Leu Pro Ser Val Thr Pro Thr Thr Val Thr Pro Gly 245 250 255
- Asp Gln Asp Ser Thr Ser Gln Glu Ala Glu Ala Thr Val Leu Pro Ala 260 265 270
- Ala Gly Leu Gly Val Glu Phe Glu Ala Pro Gln Glu Ala Ser Glu Glu 275 280 285
- Ala Thr Ala Gly Ala Ala Gly Leu Ser Gly Gln His Glu Glu Val Pro 290 295 300
- Ala Leu Pro Ser Phe Pro Gln Thr Thr Ala Pro Ser Gly Ala Glu His 305 310 315 320
- Pro Asp Glu Asp Pro Leu Gly Ser Arg Thr Ser Ala Ser Ser Pro Leu 325 330 335
- Ala Pro Gly Asp Met Glu Leu Thr Pro Ser Ser Ala Thr Leu Gly Gln 340 345 350
- Glu Asp Leu Asn Gln Gln Leu Leu Glu Gly Gln Ala Ala Glu Ala Gln 355 $360 \hspace{1.5cm} 365$
- Ser Arg Ile Pro Trp Asp Ser Thr Gln Val Ile Cys Lys Asp Trp Ser 370 375 380
- Asn Leu Ala Gly Lys Asn Tyr Ile Ile Leu Asn Met Thr Glu Asn Ile 385 390 395 400
- Asp Cys Glu Val Phe Arg Gln His Arg Gly Pro Gln Leu Leu Ala Leu 405 410 415
- Val Glu Val Leu Pro Arg His Gly Ser Gly His His Gly Ala Trp
 420 425 430
- His Ile Ser Leu Ser Lys Pro Ser Glu Lys Glu Gln His Leu Leu Met 435 440 445
- Thr Leu Val Gly Glu Gln Gly Val Val Pro Thr Gln Asp Val Leu Ser 450 455 460
- Met Leu Gly Asp Ile Arg Arg Ser Leu Glu Glu Ile Gly Ile Gln Asn 465 470 475 480
- Tyr Ser Thr Thr Ser Ser Cys Gln Ala Arg Ala Ser Gln Val Arg Ser

					485					490					495	
	Asp	Tyr	Gly	Thr 500	Leu	Phe	Val	Val	Leu 505	Val	Val	Ile	Gly	Ala 510	Ile	Cys
	Ile	Ile	Ile 515	Ile	Ala	Leu	Gly	Leu 520	Leu	Tyr	Asn	Cys	Trp 525	Gln	Arg	Arg
	Leu	Pro 530	Lys	Leu	Lys	His	Val 535	Ser	His	Gly	Glu	Glu 540	Leu	Arg	Phe	Val
	Glu 545	Asn	Gly	Cys	His	Asp 550	Asn	Pro	Thr	Leu	Asp 555	Val	Ala	Ser	Asp	Ser 560
	Gln	Ser	Glu	Met	Gln 565	Glu	Lys	His	Pro	Ser 570	Leu	Asn	Gly	Gly	Gly 575	Ala
				580					585					Lys 590	Arg	Asp
	Pro	Glu	Asp 595	Ser	Asp	Val	Phe	Glu 600	Glu	Asp	Thr	His	Leu 605			
<210> 38 <211> 86 <212> PRT <213> Homo sapiens																
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	Leu	Val	Asn	Gly 20	Thr	Val	Ile	Cys	Pro 25	Leu	Lys	Ala	Arg	Asn 30	Ser	Val
	Ile	Pro	Ser 35	Ser	Ser	Phe	Leu	Thr 40	Ser	Leu	Gln	Leu	Thr 45	Ile	Trp	Il∈
	Gln	Pro 50	Cys	Leu	Phe	Leu	Pro 55		Thr	Thr	Gly	Leu 60		Ser	Gly	Туг
	His 65	Thr	Phe	Leu	Ser	Gly 70	Leu	His	Ser	Cys	His 75	Ile	Ser	Phe	Ala	Thr 80
	Ala	Ile	Pro	Gly	Cys 85	Leu										
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Met Ala Val Ala Ala Pro Ser Arg Ala Arg Gly Ser Gly Cys Arg Ala 20 25 30

Gly Thr Gly Ala Arg Gly Ala Gly Ala Glu Gly Arg Glu Gly Glu Ala 35 40 45

Cys Gly Thr Val Gly Leu Leu Glu His Ser Phe Glu Ile Asp Asp 50 55 60

Ser Ala Asn Phe Arg Lys Arg Gly Ser Leu Leu Trp Asn Gln Gln Asp 65 70 75 80

Gly Thr Leu Ser Leu Ser Gln Arg Gln Leu Ser Glu Glu Glu Arg Gly
85 90 95

Arg Leu Arg Asp Val Ala Ala Ser Tyr Leu Asp Cys Gly Ala Thr Arg 100 105 110

Ala Cys Gly Pro Leu Leu Cys Ala Thr Leu Pro Val Ser Leu Phe Lys 115 120 125

Asn Ile Asp Asp Thr Leu Lys Cys Val Asn Val Leu Lys Ser Tyr Ser 130 135 140

Phe Gln Gln Pro Lys Ala Thr Val Val Leu Ala Arg Arg Ser 145 150 155

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<211> 58

<212> PRT

<213> Homo sapiens

<400> 40

Met Thr Lys Ala Leu Ile Pro Thr Pro Phe Phe Leu Ala Ala Met Trp
1 5 10 15

Pro Leu Trp Gln His Ser Trp Ala Gln Thr Leu Arg Ser Gln Arg Gln 20 25 30

Glu Ala Asp Ala Trp Ala Lys Ala Gly Ala Gly Asn Ser Arg Gly Ser 35 40 45

Leu Ala Trp Arg Leu Leu Met Ser Ser Gly
50 55

<210> 41

<211> 432

<212> PRT

<213> Homo sapiens

<400> 41

Met Asp Ala Arg Trp Trp Ala Val Val Leu Ala Ala Phe Pro Ser 1 5 10 15

Leu Gly Ala Gly Glu Thr Pro Glu Ala Pro Pro Glu Ser Trp Thr
20 25 30

- Gln Leu Trp Phe Phe Arg Phe Val Val Asn Ala Ala Gly Tyr Ala Ser 35 40 45
- Phe Met Val Pro Gly Tyr Leu Leu Val Gln Tyr Phe Arg Arg Lys Asn 50 55 60
- Tyr Leu Glu Thr Gly Arg Gly Leu Cys Phe Pro Leu Val Lys Ala Cys
 65 70 75 80
- Val Phe Gly Asn Glu Pro Lys Ala Ser Asp Glu Val Pro Leu Ala Pro 85 90 95
- Arg Thr Glu Ala Ala Glu Thr Thr Pro Met Trp Gln Ala Leu Lys Leu
 100 105 110
- Leu Phe Cys Ala Thr Gly Leu Gln Val Ser Tyr Leu Thr Trp Gly Val
 115 120 125
- Leu Gln Glu Arg Val Met Thr Arg Ser Tyr Gly Ala Thr Ala Thr Ser 130 135 140
- Pro Gly Glu Arg Phe Thr Asp Ser Gln Phe Leu Val Leu Met Asn Arg 145 150 155 160
- Val Leu Ala Leu Ile Val Ala Gly Leu Ser Cys Val Leu Cys Lys Gln 165 170 175
- Pro Arg His Gly Ala Pro Met Tyr Arg Tyr Ser Phe Ala Ser Leu Ser 180 185 190
- Asn Val Leu Ser Ser Trp Cys Gln Tyr Glu Ala Leu Lys Phe Val Ser 195 200 205
- Phe Pro Thr Gln Val Leu Ala Lys Ala Ser Lys Val Ile Pro Val Met 210 215 220
- Leu Met Gly Lys Leu Val Ser Arg Arg Ser Tyr Glu His Trp Glu Tyr 225 230 235 240
- Leu Thr Ala Thr Leu Ile Ser Ile Gly Val Ser Met Phe Leu Leu Ser 245 250 255
- Ser Gly Pro Glu Pro Arg Ser Ser Pro Ala Thr Thr Leu Ser Gly Leu 260 265 270
- Ile Leu Leu Ala Gly Tyr Ile Ala Phe Asp Ser Phe Thr Ser Asn Trp 275 280 285
- Gln Asp Ala Leu Phe Ala Tyr Lys Met Ser Ser Val Gln Met Met Phe 290 295 300
- Gly Val Asn Phe Phe Ser Cys Leu Phe Thr Val Gly Ser Leu Leu Glu 305 310 315 320
- Gln Gly Ala Leu Leu Glu Gly Thr Arg Phe Met Gly Arg His Ser Glu 325 330 335

Phe Ala Ala His Ala Leu Leu Leu Ser Ile Cys Ser Ala Cys Gly Gln 340 345 350

Leu Phe Ile Phe Tyr Thr Ile Gly Gln Phe Gly Ala Ala Val Phe Thr 355 360 365

Ile Ile Met Thr Leu Arg Gln Ala Phe Ala Ile Leu Leu Ser Cys Leu 370 375 380

Leu Tyr Gly His Thr Val Thr Val Val Gly Gly Leu Gly Val Ala Val 385 390 395 400

Val Phe Ala Ala Leu Leu Leu Arg Val Tyr Ala Arg Gly Arg Leu Lys 405 410 415

Gln Arg Gly Lys Lys Ala Val Pro Val Glu Ser Pro Val Gln Lys Val . 425 430

<210> 42

<211> 131

<212> PRT

<213> Homo sapiens

<400> 42

Met Ser Leu Ala Gln Arg Val Leu Leu Thr Trp Leu Phe Thr Leu Leu 1 5 10 15

Phe Leu Ile Met Leu Val Leu Lys Leu Asp Glu Lys Ala Pro Trp Asn 20 25 30

Trp Phe Leu Ile Phe Ile Pro Val Trp Ile Phe Asp Thr Ile Leu Leu 35 40 45

Val Leu Leu Ile Val Lys Met Ala Gly Arg Cys Lys Ser Gly Phe Asp 50 55 60

Pro Arg His Gly Ser His Asn Ile Lys Lys Lys Ala Trp Tyr Leu Ile 65 70 75 80

Ala Met Leu Leu Lys Leu Ala Phe Cys Leu Ala Leu Cys Ala Lys Leu 85 90 95

Glu Gln Phe Thr Thr Met Asn Leu Ser Tyr Val Phe Ile Pro Leu Trp

Ala Leu Leu Ala Gly Ala Leu Thr Glu Leu Gly Tyr Asn Val Phe Phe 115 120 125

Val Arg Asp 130

<210> 43 <211> 215 <212> PRT

<213> Homo sapiens

<400> 43

Met Arg Leu Pro Ala Trp Cys Arg His Thr Thr Leu Ala Ile Ser Cys
1 5 10 15

Trp His Cys Leu Val Leu Ala Arg Ala Ser Ala Asp Ser Ala Ser Leu 20 25 30

Pro Thr Ile Ser His Leu Gly Val Lys Pro Leu Ser Val Gly Trp Gly 35 40 45

Ala Pro Ser Thr Leu Pro Val Ser Pro Cys Gly Gly Lys Pro Ala Ala 50 55 60

Pro Thr Ser Ala Ser Pro Ala Ala Ala Pro Leu Arg Phe Trp Arg Pro 65 70 75 80

Gly Ala Ser Gly Gly Gly Ala Gly Gly Thr Arg Arg Leu Ala Leu Cys 85 90 95

Arg Leu Val Thr Ala Arg Thr Thr Leu Ala Thr Gly Thr Pro Gly Leu
100 105 110

Ser Ala Arg Pro Arg Gln Arg Pro Cys Leu Leu Pro Val Leu Pro Arg 115 120 125

Arg Pro Ala Glu Leu Ser Val Ser Leu Glu Pro Ser Pro Gly Ser Ser 130 135 140

Ser Leu Gly Gln Thr Leu Thr Ser Ser Cys Ser Leu Ser Ser Ile Leu 165 170 175

Val Gly Gly Thr Leu Arg Pro Arg Cys Ser Cys Pro Pro Phe Thr Gln
180 185 190

Arg Ser Ala Phe His Leu Arg Thr Pro His Asn Gln Tyr His His Gly
195 200 205

Ser Thr Ser Leu Ala Ser His 210 215

<210> 44

<211> 61

<212> PRT

<213> Homo sapiens

<400> 44

Met Lys Ser Ala Leu His Arg Asp Ile Cys Ile Leu Met Leu Thr Ala 1 10 15

Ala Leu Phe Thr Ile Ala Lys Thr Glu Lys Gln His Lys Cys Pro Ser

Ile Asp Glu Gln Ile Asn Asn Leu Gln Tyr Ile Cys Thr Met Glu Tyr 35 40 45

His Ser Ala Leu Gln Lys Glu Met Leu Leu Tyr Leu Gln 50 55 60

<210> 45

<211> 125

<212> PRT

<213> Homo sapiens

<400> 45

Met Ile Pro Phe Pro Ala Cys Leu Leu Leu Ala Leu Phe Pro Lys Val

Gln Val Gly Arg Thr Thr Ser Ala Tyr Phe Ser Thr Ile Pro Ser Met 20 25 30

Pro Ala Arg Ser Gln Ile Asn Leu Pro Val Glu Ser Gly Ser Ala Leu 35 40 45

Leu Glu Pro Arg Gly Lys Gly Arg Val Glu Arg Val Cys Pro Val Ala 50 60

Trp Ser Ser Met Val Ala Ser Cys Leu Pro Ser Pro Ser Ser Gly Gly 65 70 75 80

Pro Glu Gly Ser Leu Gly Thr Val Pro Gln Ile Leu Thr Gln Gly Pro 85 90 95

Ala Trp Gly Arg Asp Gly Cys Arg Gln Asn Ala Leu Tyr Arg Asp Phe 100 105 110

Leu Leu Gly Arg Cys Val Ser Pro Thr Ile Cys Leu 115 120 125

<210> 46

<211> 71

<212> PRT

<213> Homo sapiens

<400> 46

Met Leu Val Ala Ala Ile Val Phe Ile Ser Phe Gly Val Val Ala Ala 1 5 10 15

Phe Cys Cys Ala Ile Val Asp Gly Val Phe Ala Ala Gln His Ile Glu 20 25 30

Pro Lys Ala Pro His His Gly Lys Met Pro Val Tyr Ser Ser Gly Val

Gly Tyr Leu Tyr Asp Val Tyr Gln Thr Glu Val Ser Arg Ser Thr Glu
50 60

Ile His Val Gly Leu Leu Asn

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<210> 47
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<211> 69

<212> PRT

<213> Homo sapiens

<400> 47

Met Lys Ala Val Val Leu Leu Lys Ala Phe Ser Phe Ser Leu Cys Ser 10

Ala Ile Ser Pro Val Thr Pro Gly Phe Arg Gln Thr Ile Asn Val Leu

Asp Thr Val Ala Phe Ser Ala Phe Phe Ile Tyr Leu Phe Thr Val Thr

Ala Ser Ile Asn Phe Tyr Ala Tyr Phe Ser Ser Phe Leu Ala Gly Ala

Pro Phe Ile Lys Ile 65

<210> 48

<211> 85

<212> PRT

<213> Homo sapiens

<400> 48

Met Ala Ala Gly Gly Cys Leu Leu Leu Leu Ala Phe Phe Pro Leu Ser

Arg Gly Ser His Phe His Leu Gln Lys Arg Ala Leu Ala Glu Ala Ser

Phe Glu Ala Thr Leu Cys Glu Leu Phe Val Ile Glu Thr Ala Ser Lys

Gly Thr Leu Leu Ile Ile Thr Ile Arg His Leu Val Thr Tyr Ile Ile

Val Ile Phe Lys Cys His Met Leu Lys Asn Glu Met Asn Ser Ser Ile

Lys Pro His Phe Gln

<210> 49

<211> 150

<212> PRT

<213> Homo sapiens

<400> 49

Met Val Met Ile Leu Phe Val Ala Phe Ile Thr Cys Trp Glu Glu Val

Thr Thr Leu Val Gln Ala Ile Arg Ile Thr Ser Tyr Met Asn Glu Thr 20 25 30

Ile Leu Tyr Phe Pro Phe Ser Ser His Ser Ser Tyr Thr Val Arg Ser 35 40 45

Lys Lys Ile Phe Leu Ser Lys Leu Ile Val Cys Phe Leu Ser Thr Trp 50 55 60

Leu Pro Phe Val Leu Leu Gln Val Ile Ile Val Leu Leu Lys Val Gln 65 70 75 80

Ile Pro Ala Tyr Ile Glu Met Asn Ile Pro Trp Leu Tyr Phe Val Asn 85 90 95

Ser Phe Leu Ile Ala Thr Val Tyr Trp Phe Asn Cys His Lys Leu Asn 100 105 110

Leu Lys Asp Ile Gly Leu Pro Leu Asp Pro Phe Val Asn Trp Lys Cys 115 120 125

Cys Phe Ile Pro Leu Thr Ile Pro Asn Leu Glu Gln Ile Glu Lys Pro 130 135 140

<210> 50

<211> 298

<212> PRT

<213> Homo sapiens

<400> 50

Met Lys Thr Leu Gln Ser Thr Leu Leu Leu Leu Leu Leu Val Pro Leu
1 5 10 15

Ile Lys Pro Ala Pro Pro Thr Gln Gln Asp Ser Arg Ile Ile Tyr Asp 20 25 30

Tyr Gly Thr Asp Asn Phe Glu Glu Ser Ile Phe Ser Gln Asp Tyr Glu 35 40 45

Asp Lys Tyr Leu Asp Gly Lys Asn Ile Lys Glu Lys Glu Thr Val Ile 50 55 60

Ile Pro Asn Glu Lys Ser Leu Gln Leu Gln Lys Asp Glu Ala Ile Thr
65 70 75 80

Pro Leu Pro Pro Lys Lys Glu Asn Asp Glu Met Pro Thr Cys Leu Leu 85 90 95

Cys Val Cys Leu Ser Gly Ser Val Tyr Cys Glu Glu Val Asp Ile Asp 100 105 110

Ala Val Pro Pro Leu Pro Lys Glu Ser Ala Tyr Leu Tyr Ala Arg Phe 115 120 125 Asn Lys Ile Lys Lys Leu Thr Ala Lys Asp Phe Ala Asp Ile Pro Asn 130 135 140

Leu Arg Arg Leu Asp Phe Thr Gly Asn Leu Ile Glu Asp Ile Glu Asp 145 150 150 160

Gly Thr Phe Ser Lys Leu Ser Leu Leu Glu Glu Leu Ser Leu Ala Glu 165 170 175

Asn Gln Leu Lys Leu Pro Val Leu Pro Pro Lys Leu Thr Leu Phe 180 185 190

Asn Ala Lys Tyr Asn Lys Ile Lys Ser Arg Gly Ile Lys Ala Asn Ala 195 200 205

Phe Lys Lys Leu Asn Asn Leu Thr Phe Leu Tyr Leu Asp His Asn Ala 210 215 220

Leu Glu Ser Val Pro Leu Asn Leu Pro Glu Ser Leu Arg Val Ile His 225 230 235 240

Leu Gln Phe Asn Asn Ile Ala Ser Ile Thr Asp Asp Thr Phe Cys Lys 245 250 250

Ala Asn Asp Thr Ser Tyr Ile Arg Asp Arg Ile Glu Glu Ile Arg Leu 260 265 270

Glu Gly Asn Pro Ile Val Leu Gly Lys His Pro Asn Ser Phe Ile Cys 275 280 285

Leu Lys Arg Leu Pro Ile Gly Ser Tyr Phe 290 295

<210> 51

<211> 57

<212> PRT

<213> Homo sapiens

<400> 51

Met Leu Asp Leu Ser Pro Ser Leu Thr Leu Lys Phe Cys Phe Leu His

Leu Val Phe Leu Pro Phe Lys Val Tyr Cys Gln Leu Leu Gln Glu Leu 20 25 30

Leu Ser Lys Pro Val Ser Lys Leu Pro Leu Thr Pro Gln Cys Gln Ser 35 40 45

Trp Ala Arg Pro Leu Gly Asp Leu Glu
50 55

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Leu Leu Glu Ala Leu Leu Val Leu Gly Val Pro Gln His Leu Glu Leu 20 25 30

Gln Pro Leu Pro Val Gln Val Ser Leu Leu Leu Leu Gln Leu Leu Asp 35 40 45

Leu Gly Ser Leu Lys Ser His Arg Leu His His Phe His Ser Lys Ala 50 55 60

Leu Gln Leu Pro Val Leu Asp His Leu Asp Phe Gln Asp Phe Gln Leu 65 70 75 80

Pro Trp Gln Gln Val Leu Ser Glu Leu Pro Val Ala Pro Ala Phe Gly 85 90 95

Gly Gly Ser Ser Val Ala Gly Phe Gly Ser Pro Gly Leu Thr Phe Ser

His Trp Leu Phe Leu Ser His Pro Val Asp Thr Phe Gly Asn Ser Gln
115 120 125

Ala Tyr Pro Thr Ser Leu Ser Ala Leu Gln Ala Ser Ile Asn Cys Asn 130 135 140

Arg 145

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Met Lys Thr Leu Leu Leu Leu Val Gly Leu Leu Thr Trp Glu Asn 1 5 10 15

Gly Arg Val Leu Gly Asp Gln Met Val Ser Asp Thr Glu Leu Gln Glu 20 25 30

Met Ser Thr Glu Gly Ser Lys Tyr Ile Asn Arg Glu Ile Lys Asn Ala 35 40 45

Leu Lys Gly Val Lys Gln Ile Lys Thr Leu Ile Glu Gln Thr Asn Glu 50 55 60

Glu Arg Lys Ser Leu Leu Thr Asn Leu Glu Glu Ala Lys Lys Lys 65 70 75 80

Glu Asp Ala Leu Asn Asp Thr Lys Asp Ser Glu Met Lys Leu Lys Ala 85 90 95

Ser Gln Gly Val Cys Asn Asp Thr Met Met Ala Leu Trp Glu Glu Cys

Lys Pro Cys Leu Lys Gln Thr Trp Gly Lys Gly Leu Arg Pro Ser Leu 115 120 125

Gln Lys Gln His Arg Ala Gly Trp Pro Pro Gly 130 135

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Met Asp Ala Arg Trp Trp Ala Val Val Leu Ala Ala Phe Pro Ser

1 5 10 15

Leu Gly Ala Gly Gly Glu Thr Pro Glu Ala Pro Pro Glu Ser Trp Thr 20 25 30

Gln Leu Trp Phe Phe Arg Phe Val Val Asn Ala Ala Gly Tyr Ala Ser 35 40 45

Phe Met Val Pro Gly Tyr Leu Leu Val Gln Tyr Phe Arg Arg Lys Asn 50 55 60

Tyr Leu Glu Thr Gly Arg Gly Leu Cys Phe Pro Leu Val Lys Ala Cys
65 70 75 80

Val Phe Gly Asn Glu Pro Lys Ala Ser Asp Glu Val Pro Leu Ala Pro 85 90 95

Arg Thr Glu Ala Ala Glu Thr Thr Pro Met Trp Gln Ala Leu Lys Leu 100 105 110

Leu Phe Cys Ala Thr Gly Leu Gln Val Ser Tyr Leu Thr Trp Gly Val 115 120 125

Leu Gln Glu Arg Val Met Thr Arg Ser Tyr Gly Ala Thr Ala Thr Ser 130 135 140

Pro Gly Glu Arg Phe Thr Asp Ser Gln Phe Leu Val Leu Met Asn Arg 145 150 155 160

Val Leu Ala Leu Ile Val Ala Gly Leu Ser Cys Val Leu Cys Lys Gln 165 170 175

Pro Arg His Gly Ala Pro Met Tyr Arg Tyr Ser Phe Ala Ser Leu Ser 180 185 190

Asn Val Leu Ser Ser Trp Cys Gln Tyr Glu Ala Leu Lys Phe Val Ser 195 200 205

Phe Pro Thr Gln Val Leu Ala Lys Ala Ser Lys Val Ile Pro Val Met 210 215 220

Leu Met Gly Lys Leu Val Ser Arg Arg Ser Tyr Glu His Trp Glu Tyr

225	23	30	2	35	240
Leu Thr Ala	Thr Leu II 245	le Ser Ile	Gly Val S 250	Ser Met Phe	Leu Leu Ser 255
Ser Gly Pro	Glu Pro A: 260	rg Ser Ser	Pro Ala T 265	hr Thr Leu	Ser Gly Leu 270
Ile Leu Leu 275		yr Ile Ala 280	Phe Asp S	Ser Phe Thr 285	Ser Asn Trp
Gln Asp Ala 290	Leu Phe A	la Tyr Lys 295	Met Ser S	Ser Val Gln 300	Met Met Phe
Gly Val Asr 305		er Cys Leu 10		Val Gly Ser 315	Leu Leu Glu 320
Gln Gly Ala	Leu Leu G 325	lu Gly Thr	Arg Phe M	Met Gly Arg	His Ser Glu 335
Phe Ala Ala	His Ala L 340	eu Leu Leu	Ser Ile C	Cys Ser Ala	Cys Gly Gln 350
Leu Phe Ile 355		hr Ile Gly 360	Gln Phe G	Gly Ala Ala 365	Val Phe Thr
Ile Ile Met	Thr Leu A	rg Gln Ala 375	Phe Ala I	Ile Leu Leu 380	Ser Cys Leu
Leu Tyr Gly 385		al Thr Val 90	_	Gly Leu Gly 395	Val Ala Val 400
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Leu Leu Phe Leu Ile Met Leu Val Leu Lys Leu Asp Glu Lys Ala Pro

Trp Asn Trp Phe Leu Ile Phe Ile Pro Val Trp Ile Phe Asp Thr Ile 35 40 45

Leu Leu Val Leu Leu Ile Val Lys Met Ala Gly Arg Cys Lys Ser Gly

	50					55					60				
Phe 65	Asp	Pro	Arg	His	Gly 70	Ser	His	Asn	Ile	Lys 75	Lys	Lys	Ala	Trp	Tyr 80
Leu	Ile	Ala	Met	Leu 85	Leu	Lys	Leu	Ala	Phe 90	Cys	Leu	Ala	Leu	Cys 95	Ala
Lys	Leu	Glu	Gln 100	Phe	Thr	Thr	Met	Asn 105	Leu	Ser	Tyr	Val	Phe 110	Ile	Pro
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Phe	Phe 130	Val	Arg	Asp											
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Arg	Cys	Trp	Asn 20	Glu	His	Pro	Gly	Ala 25	Arg	Gly	Ala	Gly	Gly 30	Gly	Arg
Gln	Gln	Pro 35	Gln	Gln	Gln	Pro	Ser 40	Gly	Asn	Asn	Arg	Arg 45	Gly	Trp	Asn
Thr	Thr 50	Ser	Gln	Arg	Tyr	Ser 55	Asn	Val	Ile	Gln	Pro 60	Ser	Ser	Phe	Ser
Lys 65	Ser	Thr	Pro	Trp	Gly 70	Gly	Ser	Arg	Asp	Gln 75	Glu	Thr			
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Phe Tyr Phe Trp Ile Asn Gly Asp Arg Ile Asp Ser Leu Leu Glu Asn 35 40 45

Asp Arg Gln Gln Thr His Ala Leu Asp Val Met Gln Asp Ser Phe Asp 50 55 60

Arg Ala Ser Ser Ile Met Asp Glu Leu Phe Gln Asp Arg Phe Phe Thr 65 70 75 80

Arg Glu Ala Gln Asp Pro Phe His Phe Ser Pro Phe Ser Ser Phe Gln 85 90 95

Arg Arg Pro Phe Phe Phe Asn Ile Lys His Arg Phe Ala Arg Asn Ile 100 105 110

Met Pro Phe Pro Gly Tyr Gln Pro Leu Asn Phe His Asp Met Phe Gln 115 120 125

Pro Phe Phe Asp Met Ile His Gln Ala Gln Gln Ala Met Asp Val Asn 130 135 140

Leu His Arg Leu Pro His Phe Pro Met Glu Phe Thr Glu Glu Asp Asn 145 150 155 160

Gln Asp Gly Ala Val Cys Lys Glu Ile Arg His Asn Ser Thr Gly Cys 165 170 175

Leu Lys Met Lys Asp Gln Cys Glu Lys Cys Arg Glu Ile Leu Ser Val 180 185 190

Asp Cys Ser Ser Asn Asn Pro Ala Gln Val Gln Leu Arg Gln Glu Leu 195 200 205

Asn Asn Ser Leu Gln Ile Ala Glu Lys Phe Thr Lys Leu Val Arg Arg 210 215 220

Ala Ala Val Leu Pro Gly Glu Asp Val Gln His Val Leu Pro Ala 225 230 235 240

Glu Ala Ala Gly Arg Ala Val 245

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<213> Homo sapiens

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Met Ala Val Ala Lys Asp Met Trp Gln Glu Cys Asn Pro Asp Lys Lys $_1$ 5 $_{\cdot 10}$ 15

Val Trp Tyr Pro Glu Leu Lys Pro Val Val Val Gly Arg Lys Arg Gln 20 25 30

Gly Cys Ile His Met Val Asn Cys Ser Glu Val Arg Lys Glu Glu Leu $35 \hspace{1.5cm} 40 \hspace{1.5cm} 45$

Gly Ile Thr Glu Phe Leu Ala Leu Ser Gly Gln Met Thr Val Pro Leu 50 60

Thr Lys Ile Gly Arg Thr Arg Ala Val Gly Lys Met Ser Ser Leu
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Tyr Met Leu Leu Phe 85

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His Glu Gly Ser Leu Ala Ala Pro Gly Gly Gly Gly Ser Ala Gly
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Gly Ala Arg Pro Gly Asp Ser His Ser Pro Val Pro Pro Pro His
20 25 30

Ala Ala Trp Thr Met Asp Ala Arg Trp Trp Ala Val Val Leu Ala 35 40 45

Ala Phe Pro Ser Leu Gly Ala Gly Gly Glu Thr Pro Glu Ala Pro Pro 50 55 60

Glu Ser Trp Thr Gln Leu Trp Phe Phe Arg Phe Val Val Asn Ala Ala 65 70 75 80

Gly Tyr Ala Ser Phe Met Val Pro Gly Tyr Leu Leu Val Gln Tyr Phe
85 90 95

Arg Arg Lys Asn Tyr Leu Glu Thr Gly Arg Gly Leu Cys Phe Pro Leu 100 105 110

Val Lys Ala Cys Val Phe Gly Asn Glu Pro Lys Ala Ser Asp Glu Val 115 120 125

Pro Leu Ala Pro Arg Thr Glu Ala Ala Glu Thr Thr Pro Met Trp Gln 130 135 140

Ala Leu Lys Leu Leu Phe Cys Ala Thr Gly Leu Gln Val Ser Tyr Leu 145 150 155 160

Thr Trp Gly Val Leu Gln Glu Arg Val Met Thr Arg Ser Tyr Gly Ala 165 170 175

Thr Ala Thr Ser Pro Gly Glu Arg Phe Thr Asp Ser Gln Phe Leu Val

Leu Met Asn Arg Val Leu Ala Leu Ile Val Ala Gly Leu Ser Cys Val 195 200 205

Leu Cys Lys Gln Pro Arg His Gly Ala Pro Met Tyr Arg Tyr Ser Phe 210 215 220

Ala Ser Leu Ser Asn Val Leu Ser Ser Trp Cys Gln Tyr Glu Ala Leu 225 230 235 240

Lys Phe Val Ser Phe Pro Thr Gln Val Leu Ala Lys Ala Ser Lys Val 245 250 255 Ile Pro Val Met Leu Met Gly Lys Leu Val Ser Arg Arg Ser Tyr Glu 260 265 270

His Trp Glu Tyr Leu Thr Ala Thr Leu Ile Ser Ile Gly Val Ser Met 275 280 285

Phe Leu Leu Ser Ser Gly Pro Glu Pro Arg Ser Ser Pro Ala Thr Thr 290 295 300

Leu Ser Gly Leu Ile Leu Leu Ala Gly Tyr Ile Ala Phe Asp Ser Phe 305 310 315 320

Thr Ser Asn Trp Gln Asp Ala Leu Phe Ala Tyr Lys Met Ser Ser Val 325 330 . 335

Gln Met Met Phe Gly Val Asn Phe Phe Ser Cys Leu Phe Thr Val Gly 340 345 350

Ser Leu Leu Glu Gln Gly Ala Leu Leu Glu Gly Thr Arg Phe Met Gly 355 360 365

Arg His Ser Glu Phe Ala Ala His Ala Leu Leu Ser Ile Cys Ser 370 375 380

Ala Cys Gly Gln Leu Phe Ile Phe Tyr Thr Ile Gly Gln Phe Gly Ala 385 390 395 400

Ala Val Phe Thr Ile Ile Met Thr Leu Arg Gln Ala Phe Ala Ile Leu 405 410 415

Leu Ser Cys Leu Leu Tyr Gly His Thr Val Thr Val Val Gly Gly Leu
420 425 430

Gly Val Ala Val Val Phe Ala Ala Leu Leu Leu Arg Val Tyr Ala Arg 435 440 445

Gly Arg Leu Lys Gln Arg Gly Lys Lys Ala Val Pro Val Glu Ser Pro 450 460

Val Gln Lys Val 465

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Leu Leu Phe Leu Ile Met Leu Val Leu Lys Leu Asp Glu Lys Ala Pro 20 25 30

Trp Asn Trp Phe Leu Ile Phe Ile Pro Val Trp Ile Phe Asp Thr Ile
35 40 45

Leu Leu Val Leu Leu Ile Val Lys Met Ala Gly Arg Cys Lys Ser Gly 50 55 60

Phe Asp Pro Arg His Gly Ser His Asn Ile Lys Lys Lys Ala Trp Tyr 65 70 75 80

Leu Ile Ala Met Leu Leu Lys Leu Ala Phe Cys Leu Ala Leu Cys Ala
85 90 95

Lys Leu Glu Gln Phe Thr Thr Met Asn Leu Ser Tyr Val Phe Ile Pro 100 105 110

Leu Trp Ala Leu Leu Ala Gly Ala Leu Thr Glu Leu Gly Tyr Asn Val 115 120 125

Phe Phe Val Arg Asp 130

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Met Phe Leu Pro Thr Phe Tyr Pro Glu Lys Arg Phe Ser Pro Lys Asp
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Ser Ala Gln Ser Val Pro Pro Trp Glu His Leu Pro Gly Gln Pro Leu 20 25 30

Arg Ala His Trp Ala Ser Leu His His Thr Asn Thr Pro Val Pro His
35 40 45

Trp Leu Ser Asp Tyr Met Ala Val Cys Leu Val Lys Lys Lys Asn Gln
50 55 60

Lys Lys Lys Gln Lys Lys Lys Lys Lys 65 70 75

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Val Gly Thr Ala Ile Met Glu Asn Ser Met Ala Val Pro Leu Lys Thr 1 5 10 15

Glu Leu Pro Tyr Asp Pro Ala Ile Pro Leu Leu Ser Ile Pro Lys Glu 20 25 30

Met Lys Ser Ala Leu His Arg Asp Ile Cys Ile Leu Met Leu Thr Ala 35 40 45

Ala Leu Phe Thr Ile Ala Lys Thr Glu Lys Gln His Lys Cys Pro Ser
50 55 60

Ile Asp Glu Gln Ile Asn Asn Leu Gln Tyr Ile Cys Thr Met Glu Tyr 65 70 75 80

His Ser Ala Leu Gln Lys Glu Met Leu Leu Tyr Leu Gln 85 90

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Ala Arg Gly Pro Leu Gly Leu Leu Asp Pro Ala Glu Gly Leu Ser Arg

1 10 15

Arg Lys Lys Thr Ser Leu Trp Phe Val Gly Ser Leu Leu Leu Val Ser 20 25 30

Val Leu Ile Val Thr Val Gly Leu Ala Ala Thr Thr Arg Thr Glu Asn 35 40 45

Val Thr Val Gly Gly Tyr Tyr Pro Gly Ile Ile Leu Gly Phe Gly Ser 50 55 60

Phe Leu Gly Ile Ile Gly Ile Asn Leu Val Glu Asn Arg Arg Gln Met 65 70 75 80

Leu Val Ala Ala Ile Val Phe Ile Ser Phe Gly Val Val Ala Ala Phe 85 90 95

Cys Cys Ala Ile Val Asp Gly Val Phe Ala Ala Gln His Ile Glu Pro 100 105 110

Lys Ala Pro His His Gly Lys Met Pro Val Tyr Ser Ser Gly Val Gly
115 120 125

Tyr Leu Tyr Asp Val Tyr Gln Thr Glu Val Ser Arg Ser Thr Glu Ile 130 135 140

His Val Gly Leu Leu Asn 145 150

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Thr Arg Pro Val Leu Ala Tyr Val Leu Gly Asp Pro Ala Ile Tyr Gln
1 5 10 15

Ser Leu Lys Ala Gln Asn Ala Tyr Ser Arg His Cys Pro Phe Tyr Val 20 25 30

Ser Ile Gln Ser Tyr Trp Leu Ser Phe Phe Met Val Met Ile Leu Phe

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Val Ala Phe Ile Thr Cys Trp Glu Glu Val Thr Thr Leu Val Gln Ala 50 55 60

Ile Arg Ile Thr Ser Tyr Met Asn Glu Thr Ile Leu Tyr Phe Pro Phe 65 70 75 80

Ser Ser His Ser Ser Tyr Thr Val Arg Ser Lys Lys Ile Phe Leu Ser 85 90 95

Lys Leu Ile Val Cys Phe Leu Ser Thr Trp Leu Pro Phe Val Leu Leu 100 105 110

Gln Val Ile Ile Val Leu Leu Lys Val Gln Ile Pro Ala Tyr Ile Glu 115 120 125

Met Asn Ile Pro Trp Leu Tyr Phe Val Asn Ser Phe Leu Ile Ala Thr 130 135 140

Val Tyr Trp Phe Asn Cys His Lys Leu Asn Leu Lys Asp Ile Gly Leu 145 150 155 160

Pro Leu Asp Pro Phe Val Asn Trp Lys Cys Cys Phe Ile Pro Leu Thr 165 170 175

Ile Pro Asn Leu Glu Gln Ile Glu Lys Pro Ile Ser Ile Met Ile Cys 180 185 190

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Lys Lys Pro Asn Ile Ser Gly Phe Thr Asp Ile Ser Pro Glu Glu Leu

1 5 10 15

Arg Leu Glu Tyr His Asn Phe Leu Thr Ser Asn Asn Leu Gln Ser Tyr 20 25 30

Leu Asn Ser Val Gln Arg Leu Ile Asn Gln Trp Arg Asn Arg Val Asn 35 40 45

Glu Leu Lys Ser Leu Asn Ile Ser Thr Lys Val Ala Leu Leu Ser Asp
50 55 60

Val Lys Asp Gly Val Asn Pro Ala Ala Pro Ala Phe Gly Phe Gly Ser 65 70 75 80

Ser Gln Ala Ala Thr Phe Met Ser Pro Gly Phe Pro Val Asn Asn Ser 85 90 95

Ser Ser Asp Asn Ala Gln Asn Phe Ser Phe Lys Thr Asn Ser Gly Phe

100 105 110 Ala Ala Ser Ser Gly Ser Pro Ala Gly Phe Gly Ser Ser Pro Ala Phe Gly Ala Ala Ser Thr Ser Ser Gly Ile Ser Thr Ser Ala Pro Ala Phe Gly Phe Gly Lys Pro Glu Val Thr Ser Ala Ala Ser Phe Ser Phe Lys Ser Pro Ala Ala Ser Ser Phe Gly Ser Pro Gly Phe Ser Gly 170 Leu Pro Ala Ser Leu Ala Thr Gly Pro Val Arg Ala Pro Val Ala Pro Ala Phe Gly Gly Ser Ser Val Ala Gly Phe Gly Ser Pro Gly Ser His Ser His Thr Ala Phe Ser Lys Pro Ser Ser Asp Thr Phe Gly Asn 215 Ser Ser Ile Ser Thr Ser Leu Ser Ala Ser Ser Ser Ile Ile Ala Thr 230 235 Asp Asn Val Leu Phe Thr Pro Arg Asn Lys Leu Thr Val Glu Glu Leu 250 Glu Gln Phe Gln Ser Lys Lys Phe Thr Leu Gly Lys Ile 260 <210> 66 <211> 300 <212> PRT <213> Homo sapiens <400> 66 Met Ser Ser His Pro Val Ser Pro Asn Pro His His Gly Gly Ala Ala Glu Ile Lys Lys Pro Asn Ile Ser Gly Phe Thr Asp Ile Ser Pro Glu Glu Leu Arg Leu Glu Tyr His Asn Phe Leu Thr Ser Asn Asn Leu Gln Ser Tyr Leu Asn Ser Val Gln Arg Leu Ile Asn Gln Trp Arg Asn Arg Val Asn Glu Leu Lys Ser Leu Asn Ile Ser Thr Lys Val Ala Leu Leu Ser Asp Val Lys Asp Gly Val Asn Pro Ala Ala Pro Ala Phe Gly 85

Phe Gly Ser Ser Gln Ala Ala Thr Phe Met Ser Pro Gly Phe Pro Val

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			100					105					110		
Asn	Asn	Ser 115	Ser	Ser	Asp	Asn	Ala 120	Gln	Asn	Phe	Ser	Phe 125	Lys	Thr	Asn
Ser	Gly 130	Phe	Ala	Ala	Ala	Ser 135	Ser	Gly	Ser	Pro	Ala 140	Gly	Phe	Gly	Ser
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Phe	Ser	Gly 195	Leu	Pro	Ala	Ser	Leu 200	Ala	Thr	Gly	Pro	Val 205	Arg	Ala	Pro
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Pro	Val	Leu 35	Gly	Val	Gln	Glu	Glu 40	Asp	Gly	Ser	Asn	Arg 45	Ser	Ser	Ser
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Pro Ser Gly Asn Asn Arg Arg Gly Trp Asn Thr Thr Ser Gln Arg Tyr
Ser Asn Val Ile Gln Pro Ser Ser Phe Ser Lys Ser Thr Pro Trp Gly
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Gly Ser Arg Asp Gln Glu Thr
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DATE: 04/27/2001 TIME: 13:10:53

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RAW SEQUENCE LISTING

DATE: 04/27/2001 TIME: 13:10:53

PATENT APPLICATION: US/09/832,129

Input Set : A:\PZ045P1_SeqList04112001.txt Output Set: N:\CRF3\04272001\1832129.raw

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		gcccctaact ccgcccagtt ccgcccattc tccgccccat gg			30
141		ttatgcagag gccgaggccg cctcggcctc tgagctattc ca	igaagtagt		10
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W.J	102	2 <211> LENGTH: 31			
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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/832,129

DATE: 04/27/2001 TIME: 13:10:53

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Output Set: N:\CRF3\04272001\I832129.raw

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	137	cagttccgcc ca	ttctccgc	cccatggctg	actaattttt	tttatttatg	cagaggccga	180
	138	ggccgcctcg gc	ctctgagc	tattccagaa	gtagtgagga	ggcttttttg	gaggcctagg	240
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	150	ctgctgacct gg	gagaatgg	acgggttctg	ggagaccaga	tagteteaga	cactgagete	180
	151	caggaaatgt cc	accgaggg	gagtaagtac	attaatcggg	aaattaaaaa	tgctctcaag	240
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	153	accaacttgg aag	gaagccaa	qaaqaaqaaa	gaggatgccc	tgaatgacac	caaggattca	360
	154	gaaatgaagc tg	aaggcgtc	qcaqqqqqtq	tgcaatgaca	ccatgatggc	cctctgggag	420
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	156	agcacagggc tgg	gttggcca	ccaggttgag	gagttcctga	accagagtto	tcccttctac	540
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M	158	gccctggatg tca	atocaooa	cagtttcgac	caaacatcca	acatcataga	tgaggtgttc	660
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E I	160	ttccagcgga ggd	ccttttt	cttcaatatc	aagcaccact	ttacccaaa	cataatgggt	780
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SIFE.	170	ccccatcacc gtg	ratectec	cagaagaaat	ctaaggiggii	gryaagerer	ttgatteega	1320
	171	cgtggcagag aaa	aggagtta	aggaayacci	agagaagaga	aaccccaaac		1380
Parent.	172	cactgcctct cca	agecette	aggaataccg	ttatataaaa	cgggaggagt	gagatgggaa	1440
	173	cctagagaga gct	totacata	taaaaaaata	aggagagett	ceegegatga	gcgataggcc	1500
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	187	tatggcgaag cag	ttactac	golyaallgt	ttactettgat	ygctctatgg	gagtggatag	120
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RAW SEQUENCE LISTING

DATE: 04/27/2001 TIME: 13:10:53

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Output Set: N:\CRF3\04272001\I832129.raw

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							tcaccacatt		660
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		201	atcttcttcg	aataactgaa	acctggaaag	cttacaacag	tgactttgag	gaatcagatg	1020
		202	aattcaagtt	atttatgaaa	aggctaccta	tgaattattt	cctcaacaca	tctactataa	1080
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		241	gtgctagcgc	tgctgggggc	cgcccatgaa	agcgcagcca	tggcggcatc	tgcaaacata	180
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DATE: 04/27/2001

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Output Set: N:\CRF3\04272001\1832129.raw

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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.



VERIFICATION SUMMARY

DATE: 04/27/2001

PATENT APPLICATION: US/09/832,129

TIME: 13:10:54

Input Set : A:\PZ045P1_SeqList04112001.txt
Output Set: N:\CRF3\04272001\1832129.raw

L:8 M:270 C: Current Application Number differs, Replaced Current Application Number

L:57 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 L:845 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31

L:2556 M:283 W: Missing Blank Line separator, <400> field identifier L:2566 M:283 W: Missing Blank Line separator, <400> field identifier